

FRENCH PHYSICIST CREATES NEW MELODIES—PLANT SONGS

by Dr Nick Begich
© 1997

Remember those songbirds we used to hear in the fields? The sounds of animals in nature singing a symphony of soft and subtle sounds as all things flow together to create a living and vibrant concerto? Science is now showing that these sounds actually do influence the growth of plants. Researchers have demonstrated that plants respond to sounds in profound ways which not only influence their overall health but also increase the speed of growth and the size of the plant.

Many people remember hearing in the late 1960s and 1970s about the idea that plants respond to music. There were lots of projects in high schools and colleges which successfully tested the effects of sound on plant growth. It was determined through repetitive testing that plants did respond to music and sound. The first book which brought this idea to most of us was *The Secret Life of Plants*, by Peter Tompkins and Christopher Bird (Harper & Row 1973). In this best-selling book a number of astounding revelations about plant

growth were revealed. The idea that plants were influenced by sound in both positive and negative ways was demonstrated by several world-class scientists at that time.

When we think of plants being affected by sunlight we are really looking at the effect of a portion of the electromagnetic spectrum on plants; that portion which includes visible light. It should not surprise us that sound also impacts plant growth because it is, in essence, an extension to other parts of the electromagnetic spectrum.

The science was first disclosed in an article by Andy Coghlan which appeared in *New Scientist* (May 28, 1994, p. 10). The article confirmed old ideas by placing them in a scientific context. It tells an excellent story about the impact of sound on plant growth, bringing to light what was before considered esoteric or mysterious science.

Many people remember reading accounts of plant growth being stimulated by sound waves. At that time, "talking" to plants and playing plants different types of music was used to influence growth. A number of people were using these techniques without being able to completely explain the phenomena. This article is part of that story—a story which could have a profound

impact on the way we grow and produce our food.

Eccentrics who sing to their plants? People playing melodies to organic matter with the expectation that it will help stimulate growth? These ideas were the thoughts of some "non-scientists" until French physicist and musician, Joel Sternheimer discovered the mechanism for how plants respond to the stimulation of sound waves. Sternheimer composes musical note sequences which help plants grow and has applied for an international patent covering the concept.

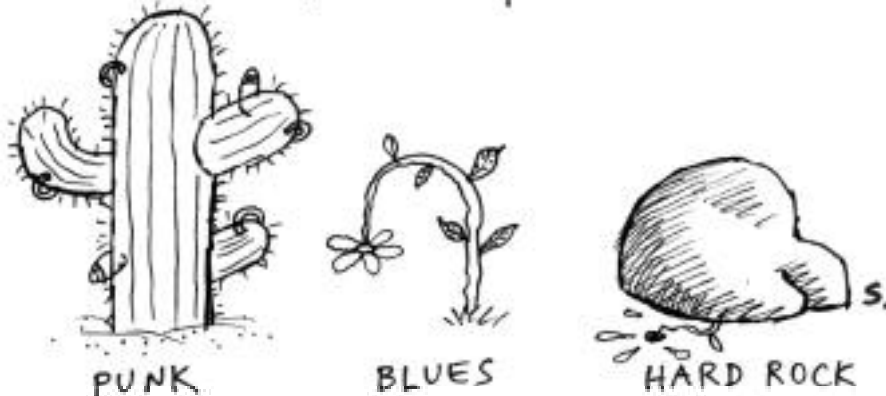
The sound sequences are not random but are carefully constructed melodies. Each note is chosen to correspond to an amino acid in a protein with the full tune corresponding to the entire protein. What this means is that the sounds sequenced in just the right order result in a tune which is unique and harmonises with the internal structure of a specific plant type. Each plant type has a different sequence of notes to stimulate its growth.

According to *New Scientist*, "Sternheimer claims that when plants 'hear' the appropriate tune, they produce more of that protein. He also writes tunes that inhibit the synthesis of proteins." In other words, desirable plants could be stimulated to grow while undesirable plants (weeds for instance) could be inhibited. This is done with electromagnetic energy—in this case sound waves—pulsed to the right set of frequencies thus effecting the plant at an energetic and submolecular level.

Sternheimer translates into audible vibrations of music the quantum vibrations that occur at the molecular level as a protein is being assembled from its constituent amino acids. By using simple physics he is able to compose music which achieves this correlation.

Sternheimer indicated to *New Scientist* that each musical note which he composes for the plant is a multiple of original frequencies that occur when amino acids join the protein chain. He says that playing the right notes stimulates the plant and increases growth. This idea is particularly interesting because it may lead to the eventual

The effect of music on plants



THE FREE ENERGY RACE 2005

by Jeff Sargent
© 2005

Things are not as they seem. We have the inclination to believe that energy is a finite resource. We are told that it is but another commodity like oil, gold, or food: a thing to be bought, sold, defended and distributed. This is an illusion. It is a falsehood born of our peculiar technological circumstance. For thousands of years we have burned wood, coal and oil to produce light and heat. It is what we have always done so it is what we continue to do, unaware of a wondrous thing that is happening. There is a race going on and few know of or talk about it.

Across the USA and in other countries, individual researchers and loose-knit groups of inventors are enthusiastically pursuing what for many is the Holy Grail of energy research. They toil away in university labs late at night, in their garages and workshops and many have spent their personal fortunes on this quest.

It is an idea derided and ridiculed by many mainstream scientists and yet the concept is firmly rooted in widely proven and accepted physics.

The idea is a simple one. Extract energy from empty space. It may first seem ridiculous, until you realise that space is never empty at all. Each cubic centimetre of space is filled with a virtually unlimited amount of energy. The late Dr Richard Feynman, a highly-respected physicist, stated that a small glass of water holds enough energy to boil-off all the oceans of Earth! Experiments confirm that the energy density of space is nearly infinite and yet, curiously, this energy is of a form that does not ordinarily interact with objects on a human scale. Except, perhaps as inertia and gravity.

Zero-Point Energy

Physicist Dr Hal Puthoff, currently researching this phenomenon at his facility in Austin, Texas, makes the observation that if you are standing on a motionless bus and the bus accelerates quickly you are pushed backward. What is it, he asks, that is pushing on you? It is the interaction between each particle of your body with the zero-point energy (ZPE) field that permeates space.

Inertia and gravity then, according to Puthoff and others, may not be fundamen-

obsolescence of fertilisers used to stimulate plant growth. This new method would be cheap and relatively easily provided throughout the world, thereby avoiding many of the problems associated with the extraction, shipping, environmental and economic costs of chemical fertilisers.

Playing the right tune stimulates the formation of a plant's protein. "The length of a note corresponds to the real time it takes for each amino acid to come after the next", according to Sternheimer, who studied quantum physics and mathematics at Princeton University in New Jersey.

In experiments by Sternheimer, he claims that tomatoes exposed to his melodies grew two-and-a-half times as large as those which were untreated. Some of the treated plants were sweeter in addition to being significantly larger.

The musical sequences stimulated three tomato growth promoters, cytochrome C, and thaumatin (a flavouring compound). According to Sternheimer in *New Scientist*, "Six molecules were being played to the tomatoes for a total of three minutes a day".

Sternheimer also claims to have stopped the mosaic virus by playing note sequences that inhibited enzymes required by the virus. This virus would have harmed the tomato plants.

The note sequences used by the inventor are very short and need only be played one time. For example, the sequence for cytochrome C lasts just 29 seconds. According to Sternheimer, "on average, you get four amino acids played per second" in this series.

The inventor also issued a warning for those repeating his experiments. He warns to be careful with the sound sequences because they can affect people. "Don't ask a musician to play them", he says. Sternheimer indicated that one of his musicians had difficulty breathing after playing the tune for cytochrome C.

Plant stimulation by sound may have profound implications. The idea that a cheap source of "electromagnetic fertiliser" has been developed should be exciting for many developing countries. At a time when human progress can be made through simple solutions in agriculture, resources are being wasted in the extraction of mineral and oil compounds for fertilisers. If this method of fertilisation were followed, the human intellect would prove superior to

physical capital in terms of distribution and production of this new technology.

The idea that sound can have a healing effect on humans is being explored by a number of independent scientists around the world. The knowledge of the "sound effect on proteins" offers insights to health practitioners of the benefits to humans. In addition to the favourable economic factors, the increased vitality of the plant substances can positively impact the health of all humans consuming them.

The patent includes melodies for cytochrome oxidase and cytochrome C which are two proteins involved in

Playing the right tune stimulates the formation of a plant's protein.

respiration. It also includes sound sequences for troponin C which regulates calcium uptake in muscles.

Further, a tune was developed for inhibiting chalcone synthase which is an enzyme involved in making plant pigments.

About the Author:

Dr Nick Begich is an editor, writer, researcher, activist and lecturer. He has been pursuing independent research in the sciences and politics for most of his adult life. He co-authored with Jeane Manning the book, *Angels Don't Play This HAARP; Advances in Tesla Technology* and also authored *Earth Rising - The Revolution: Toward a Thousand Years of Peace* [reviewed in NEXUS 7/03] and his latest book *Earth Rising II - The Betrayal of Science, Society and the Soul* [reviewed in NEXUS 10/05], both with the late James Roderick.

The above article was originally published in Series 1, No. 4 of *Earthpulse Flashpoints*, a new-science book series. Begich may be contacted at Earthpulse Press Inc., PO Box 201393, Anchorage, Alaska 99520, USA, web site <http://www.earthpulse.com>, tel: +1-907-249-9111 or fax: +1-907-696-1277.

tal forces at all but rather artefacts of interaction between matter and the ZPE field.

A physical demonstration of the ZPE field may be done with a simple experiment. If you take two steel plates, polish their surfaces to a flat mirror-finish and place the plates touching face-to-face within a vacuum, a very strange thing happens. If the plates are smooth enough, close enough and clean enough, they will spontaneously weld themselves together! The explanation is that a slight energy gradient is established in the ZPE as the plates exclude longer wavelengths and more pressure is thus exerted on the outside surfaces of the plates than on the interior surfaces. The energy is obviously there—the puzzle is how to "engineer the vacuum" so as to extract it in useable form.

Here is where things get dicey. Any research that even hints at "free-energy" is instantly regarded as a misguided attempt at "perpetual motion" by the conservative scientific community. In truth, however, utilising the ZPE is analogous to building a windmill or a hydro-electric dam. The energy is there; all we need to do is tap into it. Be that as it may, any scientist wishing to explore the topic must do so on his or her own time, without conventional funding—in a vacuum so to speak. To do otherwise is to commit professional suicide. This is a true tragedy. It keeps many great minds hobbled and has set the effort back by decades.

In the face of it all, however, progress is being made. Many inventors, too numerous to name here, have come up with various free-energy devices over the past few decades. True, some have been frauds, but others may have actually worked to various degrees, only to be forgotten, lost or suppressed. Getting this type of invention patented has proved nearly impossible but not because the devices are without merit.

Any research that even hints at "free-energy" is instantly regarded as a misguided attempt at "perpetual motion" by the conservative scientific community.

Though handicapped by lack of funding, greedy investors, naïve inventors, personal eccentricities, the vagaries and whims of the US Patent Office and some say, active suppression by shadowy forces, the dream is still very much alive.

Motionless Electromagnetic Generator

One researcher who has persevered—and apparently succeeded—in the face of tremendous opposition is Colonel Thomas

E. Bearden. On March 26, 2002 the US Patent office granted Bearden and his team a patent for his "Motionless Electromagnetic Generator", patent number 6,362,718. If curious you may go to any number of websites that discuss Bearden's invention. Try: www.theverylastpage-oftheinternet.com/magneticDev/meg/meg.htm or www.cheniere.org for extensive discussion and illustrations of the MEG device.

Bearden's device, though motionless, shares commonalities with other free-energy devices. In nearly every case, the device will establish or entrain a flow to the ZPE field using high-frequency electromagnetic fields. With the ZPE entrained by the electric current, the current is stopped suddenly with some sort of timing device. When the electron flow suddenly stops, a "radiant energy event" occurs which releases a pulse of energy far in excess of the original current flow. This pulse is captured to some degree by a transducer that converts

the unusual "radiant energy" back to a useable form. In the MEG device, Bearden uses an oscillating magnetic field to entrain the ZPE and no moving parts are involved. It is a work of elegant genius.

Rare Earth Magnetic Amplification Technology

Another device, dubbed the REMAT (Rare Earth Magnetic Amplification Technology) came onto the scene just a few months ago. It is a permanent-magnet motor invented by a man in Florida who wishes to remain anonymous at this point. A publicly traded company called GMC Holdings (GMCC) has partnered with the inventor in order to develop the motor and bring it into production. The president of GMCC, Richard Brace, appears to be an astute businessman with the acumen to shepherd the development process along, avoiding the pitfalls that have besieged most independent inventors in this arena. Brace is well versed in the financial arena which is like a shark-infested sea to most inventor-types. We have some hope that he and his company may succeed where others have failed.

The REMAT device is basically a motor with very powerful rare-earth magnets being used in the rotor assembly. Specially designed stator coils deliver brief pulses to the rotor magnets then the current is chopped abruptly. The pulse from the c



collapsing magnetic field, and perhaps from the entrained ZPE, delivers an added kick to the rotor magnets and the cycle repeats. Precise and very fast timing is part of the secret but there are others, having to do with the configuration of the stator coils, which obviously the company would prefer to keep secret at this point. A small amount of stored energy is necessary to start and run the motor, which then appears to produce substantial power during operation—considerably more power than is needed to operate the device. Overunity is the Holy Grail of energy research. If this is for real, as it appears to be, then it is scarcely a stretch of the imagination to say that it is here, with this invention, that *everything changes*. Time, as always, will tell.

Photos and videos of the motor may be viewed at www.jagonline.net. There are some unique characteristics to this device such as the utilisation of back-electromagnetic flux to deliver additional power, whereas in most motors this force is a drain on the system and limits efficiency. The other is "cool-running". The motor does not appear to lose energy through heat loss. This indicates unconventional processes at work as such claims are at odds with conventional engineering theory and design.

Interestingly, the inventor and others involved in the company knew little about the research of others in the field and apparently came up with the motor design entirely on their own. This is quite encouraging and lends some credibility to their claims as the field of free-energy research is rife with controversy, scams and self-delusional personalities, as one might imagine. Another intriguing observation is that although the inventor makes reference to some of the work done by energy pioneer Nikola Tesla*, no mention is made in reference to modern concepts of the energetic vacuum and zero-point energy.

Observe, if you will, the commonalities between the REMAT device and Bearden's MEG device. As previously mentioned, in both devices, there appears to be an entrainment of zero-point energy through the use of high-frequency electromagnetic fields.

With the ZPE entrained, the current flow is abruptly cut, the electromagnetic field collapses and a brief burst of energy is captured, apparently from the ZPE.

The "Vertical Cliff" Phenomenon

So will we see MEG devices or REMAT generators powering our homes and cars in a few years? The future is, as they say, cloudy. To quote Col. Bearden "we have arrived at that 'sheer vertical cliff' where substantial funding is required to go from successful experiments to actual scaled-up power systems ready for mass production and marketing. We strongly note that every previous legitimate [free-energy] system (there have been several) has been firmly defeated right at this same 'vertical cliff'. Nonetheless, we believe we will succeed, and so we are in serious negotiations with several major financial groups, in an

So will we see MEG devices or REMAT generators powering our homes and cars in a few years?

effort to get the substantial funding needed to finish it and get it onto the market." Bearden's health is not good, as he has suffered with Gulf War Syndrome and the ill-health of his wife. He has surrounded himself though, with capable partners and possesses a drive and savvy that may very well allow him to overcome his many obstacles. We can only hope.

In regards to GMCC's REMAT device, there are some positive indications that the company may succeed where so many others have failed. Very large and powerful organisations (Siemens, BAE Systems, NASA, Motorola, Dupont and others) are apparently looking seriously at their work (as one may gather from their website).

The Industrial Revolution changed our world in a few decades; from Kitty Hawk to the moon in 66 years. The coming "Energy Revolution" will change it even more quickly. Oil will be for plastics and chemicals, not fuel. The coal and uranium will stay safely buried. Our oil-based economy will readjust, but changes of this magnitude are seldom easy. There will be resistance. But change we must. With clean, unlimited energy we can lessen our

burden upon our delicate world and begin, in earnest, to reach for the stars.

*Nikola Tesla (1856-1943) was an energy researcher and inventor who, to a large extent, invented our modern world. He is widely acknowledged to have invented methods and machines for producing and utilising alternating current such as AC motors, transformers and long-distance transmission of electricity. Less known is his pioneering work in radio, robotics, energy weapons and many other futuristic inventions. Tesla was particularly fascinated with high-energy and high-frequency electricity and it is his Magnifying Transmitter, patent number 787,412, which has intrigued and inspired many energy researchers for the past 100 years.

About the Author:

Jeff Sargent is a freelance writer, speaker, researcher and entrepreneur living near Austin, Texas, USA. His fields of research include free energy, anti-gravity, human life extension and cognitive enhancement. Jeff may be contacted at jsargent@centurytel.net.

The author wishes to thank Richard Brace of GMC Holdings for providing information on his company and its invention; Dr Hal Puthoff for numerous conversations related to free energy, anti-gravity and related topics; and Dan York, researcher and KeelyNet member, for review of this article and for his diligent work in this field through the years.

References

- Cook, N., *The Hunt for Zero Point*, Broadway Books, New York, 2002
- Lindemann, P., *The Free Energy Secrets of Cold Electricity*, Clear Tech, Inc., Metaline Falls, WA, 2001
- McTaggart, L., *The Field*, HarperCollins, New York, 2002
- Puthoff, H. E., *Gravity as a Zero-Point-Fluctuation Force*, Physical Review A, Vol. 39, March 1, 1989

Related Websites

www.cheniere.org: Col. Thomas Bearden's website.
www.keelynet.com: The largest forum for researchers in any sort of 'fringe-science' to share ideas and results.
www.jlnlabs.org: Excellent website related to J. L. Naudin's research in France.
www.pesn.com: Pure Energy Systems news site.
www.americanantigravity.com: Much info on the related field of anti-gravity research.
www.thefieldonline.com: Lynne McTaggart's ZPE website.